

playback section 1 is in an appropriate position for removing a disk. When beam 9 of light, however, strikes a chamber 6d that does not contain a disk, there is again no adequate reflection and the control stage 13 that governs the removal of a disk is not activated.

FIG. 2 illustrates a component that comprises both a source 8 of light and a photoelectric element 10. A semiconducting section in the form of an annular photoelectric cell 16 is mounted on a semiconducting substrate 15. Accommodated on substrate 15 and in the space inside photoelectric cell 16 is a semiconductor in the form of a light-emitting gallium-arsenide diode 17. Between photoelectric cell 16 and light-emitting diode 17 is an annular shield 18. Photoelectric cell 16 and light-emitting diode 17 have a common grounded connection 19. Connected to the second connection 20 of diode 17 is a battery 21 that illuminates the diode and generates beam 9 of light. Reflected beam 9b strikes annular photoelectric cell 16 and generates a voltage U_s at terminal 22 that is processed in control circuit 11 as illustrated in FIG. 1. Annular shield 18 prevents the light leaving light-emitting diode 17 from arriving directly on photoelectric cell 16. The system is described in greater detail in German Patent 2 425 855.

FIG. 3 illustrates a magazine 4 with two characteristics in addition to those illustrated in FIGS. 1 and 2.

Associated with each disk compartment 6a through 6d is a read-and-write memory in the form of a magnetic strip 23. The address of the disk 5a in compartment 6a can be entered into magnetic strip 23 by way of buttons 24 on playback section 1 in conjunction with sensor 25. Magnetic strip 23 will accordingly contain the address of the disk 5a in compartment 6a. The remaining compartments 5b-d are similar in design. To play a particular disk 5, its address is entered in playback section 1 by way of buttons 24. Sensor 25 reads magnetic strip 23 while playback section 1 moves relative to magazine 4 as illustrated in FIG. 1. Once the address read out of magnetic strip 23 agrees with the address entered by way of buttons 24, playback section 1 will stop moving in the direction indicated by arrow 3 in FIG. 1 and a disk 5 is removed from compartment 6. Thus, buttons 24, which can in an automobile be located remote from playback section 1 and magazine 4, can be activated to select any desired disk 5 for playback in playback section 1. Instead of a magnetic strip 23, other types of memory, optical or solid-state for example, that an address can be entered into, that can be read to determine an address, and that can be erased to accommodate another address can be employed.

Memories of this type for the entry and determination of cassette addresses are described in German OS 2 943 409 for example.

FIG. 3 also illustrates a matrix 26 of numbers 1 through 8 associated with each compartment 6. These numbers represent the individual long or short pieces of music recorded on each disk 5. There are actually more than eight numbers. The operator marks, with a black pencil for example, the numbers of the pieces on disk 5 that he would like to listen to as represented by the black squares in the matrix. When a disk 5a is supplied for playing to playback section 1, the matrix is scanned by an opto-electric sensor 27 and the result stored in playback section 1. The sensing advance of playback section 1 is limited by appropriate controls in such a way that only the marked pieces 2 and 7 will be played and the intermediate pieces will be skipped during rapid search with very short pauses on the order of one or

two seconds. Similarly, only piece 4 on disk 5b and only pieces 1 and 8 on disk 5c will be played. None of the numbers in matrix 26d is marked because compartment 6d contains no disk.

Combining the system of addresses stored in magnetic strip 23 with the processing of the marked numbers in matrices 26 accordingly makes it possible to play any desired pieces of music on any desired compact disk 5 in any desired order. Playback section 1 will also preferably include a memory for storing the addresses of the compact disks 5 that are conveyed one after another to playback section 1 in order to allow the pieces marked in the matrices for each disk to be played.

A magazine 4 can also be assembled from separate holders, each containing one disk. Compact disks for example are each accommodated in a separate housing open at one edge, and the individual housings or holders can be snapped or otherwise locked together into a magazine 4.

FIG. 4 illustrates another version of the system illustrated in FIG. 1. A light conductor 30 is associated with each compartment 6 in magazine 4. Light conductors 30 conduct a beam 9 of light generated by an external source 8 into compartment 6 and divert a beam 9c onto the side of disk 5. The light conductor can for this purpose be provided with one or more reflecting areas or can be angled toward the side of disk 5 such that the area that the light emerges from is simultaneously the area in which the light enters. The beam reflected from the side of disk 5 is again intercepted by light conductor 30 and conveyed to photoelectric element 10. Source 8 of light and photoelectric element 10 are mounted on an optics support 31 that is preferably rigidly secured to the playback section (1 in FIG. 1) and can accordingly move up and down. Light conductor 30 is positioned in relation to optics support 31 such that, once a prescribed position has been attained, the playback section will be adjusted for the disk 5 just arrived at. Associated with source 8 of light is a diaphragm 32 that enables fine adjustment. Another means of fine adjustment illustrated in FIG. 4 is a wheel 33 that is rotated or moved by optics support 31 as the support travels up and down and that operates in conjunction with an incremental generator in the form of a sensor 34. The number of rotations of wheel 33 is a measure of the level at which optics support 31 is located.

FIG. 5 illustrates a light conductor 30 with a reflecting point 35 at one end and a disk 5 below it. Beam 9 of light is diverted down at the end of light conductor 30 onto the side 35 of disk 5, whence it is reflected. If the side is sufficiently reflective, the reflected beam 9d will arrive at photoelectric element 10 (FIG. 1) by way of light conductor 30. Since disk 5 has both a reflecting and a non-reflecting or poorly reflecting side, the procedure that stops the upward or downward motion of the playback section will be activated only when the disk is correctly inserted.

FIG. 6 illustrates a light conductor 30 with several reflecting areas.

FIGS. 7a and 7b illustrate a light conductor 30 with a leg 36 that has a reflecting area 37 extending into the vicinity of small compact disks 5 and another reflecting area 38 that detects only larger compact disks 5. The reflecting areas are mutually displaced such that the dimension of the reflected and detected light makes it possible to determine whether one or all of the reflecting areas have obtained reflected light. A light conductor of this type makes it possible to distinguish between